

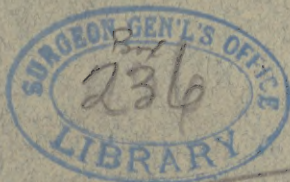
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SKETCH OF THE LIFE

OF

PROFESSOR SAMUEL D. GROSS, M.D.

By J. EWING MEARS, M.D.



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OF THE LIFE OF
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IN contemplating the life and character of one who has achieved eminence in his profession or calling, it is of interest to examine into the conditions which surrounded his early life—to observe their peculiarities, and to study the influence exerted by them upon his development. It is the custom to-day, in speaking of self-made men—as those who have accomplished all in life without assistance from others—to ignore those impressions stamped upon the individual in his early life, which, becoming part of his nature, direct and control his career. The effect of such impressions is to be observed in the life of the subject of this memoir, the conditions of whose early life and training were of such character as to develop great industry, a desire for knowledge, and a noble ambition to achieve distinction in his calling.

Samuel David Gross was born July 8, 1805, in Forks Township, Northampton County, Pennsylvania, five miles from the city of Easton. His parents were Philip and Johanna Juliana Gross, and he was the fifth of six children—two girls and four boys. His father belonged to the class of people so well known in this State as Penn-

sylvania Germans, coming originally from the Palatinate, an old division of Germany. He was a well-to-do farmer, owning a farm of one hundred and sixty-four acres, which, at the time of his death, in 1813, was sold for \$12,600. This farm, the birthplace and early home of young Gross, was situated in one of the most beautiful regions of Northampton County, on an elevated tableland, overlooking the junction of the Lehigh and Delaware Rivers, with the Blue Ridge range of mountains on the north, and South Mountain in view on the south—the whole forming a landscape of never-ending beauty—changing with the changing seasons, presenting always to the eye an inviting picture of activity and prosperity in the well-cultivated and well-kept farms of the inhabitants; such a scene, moreover, as would deeply impress a thoughtful young man, and inspire him with energy and a love of industry.

Young Gross was in the ninth year of his age at the time of the decease of his father, and was, with his brothers, by direction of his father's will, placed in the care of guardians, who, as stated in the will, "were to take the boys into their own care, and bring them up in a decent manner, and get them instructed in reading, writing, etc., and also in the Christian religion as taught by the Lutheran Church; and, whenever my sons shall arrive to a proper age, the same guardians shall put them out to trades of their own choice."

In obedience to these injunctions of the last will and testament of the father, Samuel, with his brothers, passed under the guardianship of two worthy men of an adjoining township, Philip and Henry Claus, who received from the executors of the estate, settled March 31, 1815, the sum of \$1976.15 as his share.

In fulfilment of the instructions given by his father he was sent to the Academy in Wilkesbarre, at that time under the charge of Mr. Joel Jones, afterwards a judge of one of the courts of Philadelphia, and subsequently President of Girard College, being the first to occupy this position. Judge Jones was a gentleman of elegant

manners and fine classical attainments, and gave to the institution over which he presided a reputation for excellence in the character and thoroughness in the methods of instruction, which placed it in the front rank of institutions of its kind in the State.

After a course of instruction of a few years in this school, it is reported that young Gross entered the office of a physician, whose general and professional attainments were not of a high order; and that, shortly after taking this step, he made the discovery that his preceptor, into whose hands he had placed himself for instruction and guidance, knew very little. Moreover, as he himself gained some information of the vast field of inquiry to be explored in the acquisition of professional knowledge, he became painfully impressed with the consciousness of his own incomplete and defective preparation, and wisely determined, ere too late, to retrace his hasty steps. In the execution of this prudent decision he consulted Dr. Joseph K. Swift, of Easton, who commended the wisdom of his action, and encouraged him by kind words of advice to pursue further his preparatory education; and in this he no doubt laid the sure foundation of his subsequent professional success. In accordance with the advice given he entered the High School at Lawrenceville, New Jersey, a private school of instruction, in charge of Dr. Isaac Brown, an alumnus of Princeton College. This institution enjoyed a high reputation as a school of preparation for those who desired to complete their education with a collegiate course in Princeton, and many received their early education within its walls who subsequently became distinguished as scholars and professional men.

On the completion of his course of instruction in this school, at the age of nineteen, he entered the office of Dr. Swift as pupil, where he remained under tuition until he became a student in Jefferson Medical College. In Dr. Swift he found a most able instructor, a man of fine attainments in classical and English literature and science, and a physician and surgeon of the highest reputation. In

the selection of Dr. Swift, as his preceptor in medical studies, he was most fortunate, acquiring, no doubt, under this physician's instruction, his fondness for scientific studies, and his systematic methods of investigation.

At the expiration of his term as office student with Dr. Swift he came to Philadelphia, and matriculated in Jefferson Medical College—at the same time becoming an office pupil of Professor George McClellan, the founder of the College and its active spirit. Again, his selection of a preceptor was judicious, as it placed him under the instruction of one of the most eminent surgeons of the day—a man of great energy and originality—inspiring those about him with his love of labor and investigation, and a successful teacher in his office and in the classroom. His surgical practice was large, and the facilities offered to his office students for practice as assistants, and for observation were very great, and of all of these Dr. Gross availed himself to the utmost. Recognizing in the surgical operations he witnessed the great value of anatomical knowledge, he devoted himself zealously to work in the anatomical room, laying the foundation of a knowledge of the branch which he pursued with such ardor and advantage in after years.

In 1828, at the age of twenty-three, he received his degree in medicine, the subject of the thesis, presented by him on that occasion, being "Cataract." The graduating class numbered twenty-five, and his thesis was one of three which discussed a surgical subject. After his graduation he undertook the practice of his profession in Philadelphia, but with such meagre success as to pecuniary results that he returned to his native place after two years' effort. During his sojourn in Philadelphia, however, he married. Undaunted by the discouraging prospects of financial success in his professional work he assumed, in the spirit of true manhood, the responsibilities of the care of a partner of his joys and sorrows. In the accomplished and charming lady chosen for his wife he found, in-

deed, a helpmate,—one who, with hopeful courage, lightened the burden of care during the struggles of his early life, and enriched the glories of his triumphs in the meridian of his manhood. On his return to Easton he soon acquired practice, being regarded as a very promising physician, although the fees were quite far from adequate for the services required and rendered. Among his patients was a man who sustained a fracture of the leg while at work in a quarry, a short distance from the town. He reduced and dressed the fracture on the spot, and sent the patient home, some three miles distant, where he visited him a number of times until the cure was complete. The fee charged and received for his services in this case was *six* dollars, quite in contrast to fees received later in his life for such services.

On the appearance of Asiatic cholera in New York, in 1832, he was sent by the authorities of the town to that city to study its nature and treatment. On his return he made a report, which was published in the papers of that time. He was also appointed examining surgeon of the United States recruiting office, a position which he held until his departure West.

In 1833 Dr. Gross decided to remove to the West—a portion of the country at that period offering great inducements to young men of energy and industry, especially in the profession of medicine. Declining the Professorship of Chemistry in La Fayette College, in October of that year he took his departure from Easton, stopping at the city of Pittsburg, where he thought he might take up his residence. The attractions of the smoky city were not sufficiently great, and, leaving his family here, he journeyed on to Cincinnati. There he found a field of work more congenial to his tastes, and his family soon after joined him in the home he had selected. He remained in Cincinnati seven years, during which time he held the position of Demonstrator of Anatomy in the Medical College of

Ohio for two years, and the Chair of Pathological Anatomy in the Cincinnati College during the remaining five years.

His devotion to the subject in which he was so deeply interested interfered, to some extent, with the acquisition of a very lucrative practice, although some of his patients were among the most prominent citizens, and he enjoyed the reputation of a successful practitioner of medicine.

Election to the Chair of Surgery in the Louisville Medical Institute—afterwards the University of Louisville—made necessary a change of residence to Louisville in 1840. Here he resided until 1849, when he removed to New York, to accept the Chair of Surgery in the University of the City of New York, made vacant by the retirement of Dr. Valentine Mott. He remained in New York but one year, returning at the expiration of this time to Louisville, to resume the professorship he had vacated at the time he had taken his departure, and which had been filled by Dr. Paul F. Eve, who withdrew in his favor.

His occupation of the Chair of Surgery in this flourishing medical school of the Southwest gave him an extensive reputation, and brought to him patients from a wide section of the country. His residence in Louisville covered a period of nearly sixteen years—between 1840 and 1856—when he was called to Philadelphia to take the Chair of Surgery in his Alma Mater—Jefferson Medical College, made vacant by the resignation of Professor Thomas D. Mütter. During his residence in Louisville he drew about him and his family a large circle of friends and acquaintances, and became identified with the interests of the place as one of its prominent citizens, as well as a distinguished practitioner of medicine, in the possession of a large practice.

In his change of residence to Philadelphia, Dr. Gross was enabled to free himself from the care and labor of a large family practice, and devote himself to consultation practice chiefly. It afforded him,

moreover, an opportunity, which he had long desired, of completing his *System of Surgery*, a work upon which he had been engaged for some time, the first edition of which was issued in the fall of 1859. As in Louisville, so in Philadelphia, his position as Professor of Surgery in a flourishing medical school brought to him a large number of patients from this and the adjoining States, as well as many from the far West. He gave much time to his work in the College, delivering, during the regular session, four didactic lectures; and, during one-half of this season, two clinical lectures each week. Until the establishment of the present College Hospital, he also conducted two clinics each week during the spring and fall terms. He took part in the work of this Society, as well as in that of the Pathological Society and of the Academy of Surgery, of both of which he was the founder. So that, from the time of his return to this city, in 1856, until his last days, he led a busy life, engaged actively as he was in professional work, College duties, literary labors, and Society proceedings. He was, moreover, always ready to participate in all movements which related to the advancement of the interests of his profession.

In studying the life-work of Dr. Gross, we recognize the distinction he attained in all departments of his calling—as an author, a teacher, an original investigator, and a practitioner.

His literary work began soon after his entrance into the profession as the translator from the German and French of four works upon the four different topics of anatomy, medicine, obstetrics, and surgery. Then he entered upon the more important work of the author, and published his *Treatise on the Anatomy, Physiology, and Diseases of the Bones and Joints*. During his residence in Easton, after his departure from Philadelphia, he began, but did not complete, a work on descriptive anatomy. One of the chief features of this work was the change in nomenclature of anatomy from the Latin into English. His studies and investigations of morbid

anatomy in connection with the duties of the chair of Pathological Anatomy in the Cincinnati College, gave him the knowledge which enabled him to compose his work entitled *Elements of Pathological Anatomy*, which was issued in 1839, in two large volumes. In 1845, a second edition was published in one volume of eight hundred and twenty-two pages; and in 1857 the third and last edition appeared, revised and enhanced in value by the addition of material obtained through the more extended investigations into minute anatomy accomplished by the use of the microscope. In this portion of the work he received valuable assistance from Dr. J. M. DaCosta. In estimating the value of this, one of the most important contributions to science from the pen of Dr. Gross, we must recall the comparative meagre opportunities for the investigation of morbid anatomy enjoyed by him at the time of the commencement of his work. How great the contrast between the laboratory of the worker in this country and abroad in that day and of the present time. Rokitsansky, the distinguished pathologist and founder of the Austrian morbid anatomy school, had placed at his disposal an immense fund of materials reserved almost entirely for the elaboration of his great work on pathological anatomy, which was given to the world between the years 1842 and 1846, the number of bodies examined by him summing up at that time nearly thirty thousand. Dr. Gross could avail himself only of such post-mortem examinations as could be obtained through the kindness of his professional friends and such as the anatomical room furnished, in elaborating this the pioneer work on pathological anatomy in this country.

On his return from New York to Louisville, in 1851, Dr. Gross placed in the hands of his publishers in Philadelphia his *Practical Treatise on the Diseases, Injuries, and Malformations of the Urinary Bladder, the Prostate Gland, and the Urethra*. The materials of which the work consisted, as stated in the preface, had been accumulating for a long time, and he took advantage of the

leisure afforded during his stay in New York to arrange them for publication. He was induced to write this work by the absence of any systematic treatise in the English language upon the maladies of the structures in question, the monographs of Sir Benjamin Brodie and Mr. Coulsen being very unsatisfactory in character and extent. A second edition was issued in 1855, and a third in 1876, under the editorship of Dr. S. W. Gross, who, by careful revision and the introduction of new material, brought the work fully up to the state of the science at that time.

In 1854, Dr. Gross published his *Practical Treatise on Foreign Bodies in the Air-passages*, an octavo volume of four hundred and sixty-eight pages. This work was based upon the full reports of two hundred cases, and at the time of its publication possessed the great advantage of being the first systematic treatise upon the subject. As stated by Dr. Morrell Mackenzie, in his work published thirty years later, the works subsequently published by Bourdillat and Kühn "only confirm the conclusions previously arrived at by Gross."

Soon after Dr. Gross's arrival in Philadelphia, in 1856, he recommenced work upon his *System of Surgery*, the first edition of which was issued in 1859, in two large octavo volumes of twenty-three hundred and sixty pages. Succeeding editions were issued until the sixth and last, which came from the press in 1882. In the preface to the first edition he states the object of the work "that of furnishing a systematic and comprehensive treatise on the science and practice of surgery, considered in the broadest sense." Although presented as a formal and systematic treatise, it was founded upon the course of lectures delivered by him during the twenty years past in the University of Louisville, and more recently in Jefferson Medical College. During that period he had been unceasingly devoted to the duties of an arduous practice, both public and private, to the study of the great masters of the art and science of medicine and surgery, and to the composition of various monographs upon a

number of subjects discussed in his work. If, upon certain points of doctrine, he was obliged to differ from collaborators of acknowledged authority and of the highest professional eminence, it was because he found it impossible to do otherwise. As Luther said, at the diet of Worms, "Hier stehe ich, ich kann nicht anders." In the composition of a work so extensive, no author could possibly rely entirely upon his own resources, and he therefore made free use, whenever it was necessary, of the labors of his contemporaries. In the last edition he presents the results of over fifty years' experience as teacher and practitioner, and from this vantage-ground reviews the great advance made in the science and art of surgery—more especially during the past fifteen years, a brief but prolific period of the world's history—the brilliant advances in abdominal and pelvic surgery, the wonderful results achieved by antiseptic methods of wound-treatment, the achievements of specialism, "which, with its methods and instruments of research, has penetrated the innermost recesses of the human body, and achieved, in a comparatively brief period, triumphs which general surgery could not have achieved in half a century, if, indeed, ever." He recognizes among the changes which fifty years have wrought, that to-day "the world abounds in great surgeons, men accomplished in science and skilled in the art of healing, capable of interpreting the secrets of pathological processes, of diagnosing disease, and of performing with ability and readiness all the great operations formerly the province of a favored few." These were his reflections in sending forth to the world the last edition of his great work—the embodiment of his life's labors.

In addition to the treatises and text-books enumerated above, Dr. Gross, in 1861, wrote a brief *Manual of Military Surgery*, which was composed in nine days, and published in two weeks from the time of its inception. In conjunction with Dr. T. G. Richardson, he established the *Louisville Medical Review*, in 1856, and on their removal to Philadelphia continued its publication under the title of

the *North American Medico-Chirurgical Review*, which survived until the outbreak of the civil war. He made numerous contributions upon various topics to the medical periodicals of the day, and faithfully performed his duty in reading papers before the local, State, and National associations of which he was a member. His last contributions of this character were composed a few weeks before his death, and were read, one on "Wounds of the Intestines," before the American Surgical Association, while he lay upon his deathbed, and one before the American Medical Association, on "Lacerations of the Female Sexual Organs consequent upon Parturition, their Causes and their Prevention," two days after he expired.

The composition of memoirs and biographical sketches was a favorite task with him, and of these he prepared a number. It was a labor of love with him to record the lifework of a friend, and he esteemed it an act of justice to establish, in a record of their work, the claims of all who had labored to advance the welfare and interests of their profession.

In this brief review of the literary productions of Dr. Gross, we can appreciate the vast amount of labor expended in their execution—labor performed in hours taken from those belonging rightfully to repose, or in the intervals of rest from the exacting duties of his profession. His methods of labor were so exact and systematic, that every moment of time was utilized. He wrote with facility, always making himself master of a subject before he transcribed his thoughts to paper. Clearness of expression, rather than elegance of diction, characterized his style of writing. No doubtful meaning or obscurity of thought impaired his sentences.

Dr. Gross's work as an original investigator included, among other experiments, those made by him during his residence in Easton, to determine the temperature of the venous blood; also upon excretion, in order to ascertain the rapidity with which certain articles, when ingested, passed into the blood, and were eliminated by the kidneys.

He also tested, by experiment, the truth of Gendrin's observations with regard to the inoculation of an inferior animal with the virus of smallpox, disproving the statement that the disease could be thus communicated. In 1835 he published the results of his investigations upon the temperature of the blood in the *Western Medical Gazette*.

The most elaborate experiments conducted by him were those to determine the nature and treatment of wounds of the intestines, begun in 1841, and continued for two years. The results of his labors were published finally in an octavo volume of two hundred and twenty pages, illustrated by wood-cuts, entitled an *Experimental and Critical Inquiry into the Nature and Treatment of Wounds of the Intestines*.

Dr. Gross began his work as a public teacher in the Medical College of Ohio, in connection with his duties as Demonstrator of Anatomy. The Chair of Pathological Anatomy, to which he succeeded in the Cincinnati College, afforded him a wider field for the display of his powers, and became a school of preparation for the successful performance of the very important duties imposed upon him as occupant of the Chair of Surgery in the University of Louisville. The sixteen years devoted to the preparation and delivery of a systematic course of lectures upon surgery, founded upon careful study and the experience derived from an extensive and varied practice, contributed largely to his reputation as an able teacher of that branch, and rendered his name prominent throughout the country, so that on the occurrence of the vacancy in the Chair of Surgery in Jefferson Medical College in 1856, he was chosen to fill it. In 1882 he resigned his position, thus terminating his career as a public teacher after forty-nine years of continuous service.

In performing his duties as a teacher, Dr. Gross always felt the grave responsibility which rested upon him. He never entered the lecture-room without due preparation, no matter how familiar he

was with the subject which he proposed to discuss. The first lecture of the session was always one which he gave with more or less embarrassment. He described the sensation experienced by him as that of timidity, which he was never able to overcome. The subject matter of this lecture related to the duties and responsibilities which belonged to him as teacher and to the class as students. Friendly advice was given as to the care of health under the changed conditions of life which attended necessarily their entrance upon the college course. The cultivation of systematic methods of study and work was inculcated. In the lecture-room, order and decorum would be exacted. Punctuality, "the politeness of kings," would be strictly observed by him and expected from them. Having thus established the most friendly relations with the class, he passed on through the course, taking up in order the various topics of his branch and expounding them in the most effective manner. He possessed in marked degree the power of imparting knowledge, his thoughts were expressed in clear and forcible language, and he inspired the class with the same enthusiasm which he himself felt in his subject. His teachings made a strong impression upon the College, giving it a reputation throughout the land as a surgical school of the first standing, and each year there went from its halls many of the class who made this branch of medicine their special study and practice.

In his clinical lectures he illustrated the subjects taught didactically as far as possible. Patients were not brought before the class for the exhibition only of manual dexterity in performing operations. A concise history of each case was presented, including an exposition more or less full of the causes, symptoms, diagnosis, prognosis, and treatment. In his operations he never sacrificed care in the procedure to brilliancy of manipulation. In difficult cases his plan of operation was carefully prepared in advance, and he proceeded to its execution with decision and courage, ready for any emergency which

might happen in its performance. His thorough knowledge of anatomy made the field of operation a "terra cognita" to him. Errors in diagnosis were rare with him. Careful examination fortified by extensive experience gave him knowledge of the distinguishing characteristics of a wide range of morbid conditions. The exploring needle was a well-used instrument in his operating case. With the exception of some of the more recent operations performed upon organs of the abdominal cavity, he performed all of those included in the domain of surgery. Mishaps upon the operating table occurred to him as to other surgeons of extended practice. He was prepared to meet them when they came. In one, which came under the observation of the writer of these lines, death took place during the administration of the anæsthetic agent (chloroform), and his action in assuming the entire responsibility of the accident gave illustration of his noble character.

Dr. Gross was not only a great surgeon, but he was a good physician; he was very earnest in his declaration that the surgeon should have a thorough knowledge of general medicine. The after-treatment of the patient was to him as important as the performance of the operation.

He was a man of strong convictions, and while he adhered tenaciously to his opinions, he was always ready to accept that which he found, after careful examination, to be entitled to acceptance. He did not adopt new things hastily, or because they were new. The pronounced manner in which he speaks of antiseptic surgery and specialism, in the last edition of his *System of Surgery*, shows what changes had been wrought in his views upon these subjects. He possessed in an eminent degree what may be called a progressive conservatism, the outcome of his early training impressed by the great progress of the day. His views upon medical teaching were such as it is natural should be held by one whose life had been devoted to the didactic methods of instruction. While he did not

advocate the system of advanced education more recently established in some of the medical schools of the country, he was most fully impressed with the inestimable value of preliminary education. He felt that some systems of instruction were overweighted and cumbersome; too much importance and too much time being devoted to certain topics to the exclusion of others. In systematic, careful, and honest instruction he always believed, as he was, in himself, its greatest exponent.

Dr. Gross always took a deep interest in the medical societies of which he was a member, and with a few exceptions received at the hands of the members the highest honors. He was founder of a number of societies: among them the Pathological Society of this city, the Philadelphia Academy of Surgery, and the American Surgical Association. He was an honorary member of many native and foreign societies as well.

His distinguished attainments in the science of medicine brought to him the high honors of some of the most renowned institutions of learning of the world, including the University of Oxford, which, in 1872, conferred upon him the degree of D.C.L. The degree of LL.D. he received from the Jefferson College of Canonsburg, Pa., in 1861; the University of Cambridge, in 1880; the Universities of Edinburgh and of Pennsylvania, *in absentia*, in 1884.

Of the distinguishing traits of character possessed by Dr. Gross, none was more marked than the great interest he took in the younger members of the profession and in those who had been associated with him as student or assistant. He took great pride in their success, and was always ready to extend the helping hand in the time of their trials. They knew that they had in him a kind friend and a wise counsellor.

Dr. Gross enjoyed in the fullest manner the social pleasures of life. His house was the centre of true hospitality, and about his table have been gathered the most distinguished persons of all pro-

fessions and countries. No rigid formalities restricted the enjoyment of these occasions—all were made to feel thoroughly at home.

Those who were honored with his intimate friendship, and who were received within the circle of his home-life, saw in the great surgeon the devoted husband, the kind and indulgent parent, the affectionate friend.

During Dr. Gross's residence in the West, he suffered from conditions which were caused by exposure to the malarial influences of that climate. Still, by careful attention, he maintained his health, and it was indeed rare that during his whole service as a teacher he missed a lecture on account of sickness. His last illness was fortunately not prolonged, although his sufferings at times were very painful. On May 6, 1884, he died, in the 78th year of his age, his last moments being comforted by the presence of all of the devoted members of his family. In accordance with his wishes, his body was cremated, and the ashes were deposited in the family vault at Woodlands, where rested the remains of his wife.

I have not attempted, Mr. President, to pronounce a eulogy upon the life and character of Dr. Gross. The record of the work of his life is in itself the highest eulogy which can be pronounced. He has by his work so impressed his name upon the pages of the history of his profession in the day in which he lived, that it will endure throughout all time.

Truly could he say,

“NON OMNIS MORIAR.”



